FAST SWITCHING POWER INSULATED GATE SEMICONDUCTOR DEVICE

ABSTRACT OF THE DISCLOSURE

An insulated gate semiconductor device (30) includes a gate (34), a source terminal (36), a drain terminal (38) and a variable input capacitance at the gate. A ratio between the input capacitance (C_{fiss}) when the device is on and the input capacitance C_{iiss} when the device is off is less than two and preferably substantially equal to one. This is achieved in one embodiment of the invention by an insulation layer 32 at the gate having an effective thickness d_{ins} larger than a minimum thickness.